

REMARKS

The Office Action dated October 3, 2003 has been received and carefully noted. The above amendments to the claims, and the following remarks are submitted as a full and complete response thereto. Claims 1-6 are pending in this application with claims 1-6 being amended. No new matter is presented. In the outstanding Office Action, claims 1-5 were rejected under 35 U.S.C. § 103(a) (two different rejections). In view of the above amendments and the following remarks, Applicants request the favorable consideration of claims 1-5.

35 U.S.C. § 103(a)

Claims 1-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Furutani et al. (U.S. Patent No. 5,305,261, hereinafter "Furutani") in view of Kurtze et al. (U.S. Patent No. 5,022,004, hereinafter "Kurtze"). The Office Action takes the position that Furutani and Kurtze, in combination, teach and/or suggest the features recited in claims 1-5. Applicants respectfully disagree.

Claim 1 is directed to a semiconductor device having data lines over which data is transferred. The semiconductor device also includes a drive circuit that drives the data lines in operating modes. The operating modes includes a dynamic operation mode in which the data lines are precharged prior to transfer of the data over the data lines and a static operation mode in which the data lines are not precharged prior to transfer of the data over the data lines.

Furutani is directed to a semiconductor memory device that includes a memory cell 3 having a plurality of memory cells arranged in a matrix of rows and columns. The semiconductor device further includes an equalizing/precharging circuit 2 for equalizing and precharging the column lines of the memory cell array 3 to a predetermined potential. However, as admitted by the Office Action, Furutani fails to teach and/or suggest a static operation mode in which the data lines are not precharged. The Office Action utilizes Kurtze as teaching this feature.

It is respectfully submitted that Kurtze does not cure the deficiencies of Furutani. Specifically, Kurtze does not teach and/or suggest data transfer on data lines that are not precharged. Kurtz only teaches precharging of control lines. Kurtz discloses that the Prechg 60 de-asserts all control lines and then the cycle proceeds to an idle state 52. (See Fig. 1, Pchg 60, and Column 2, Lines 40-41). Accordingly, Kurtze does not teach and/or suggest a static operation mode in which the data lines are not precharged prior to the transfer of the data over the data lines.

Accordingly, the combination of Furutani and Kurtze fails to teach and/or suggest the features of the claimed invention. Specifically, the combination of these references fails to teach and/or suggest a semiconductor device having a static operation mode in which the data lines are not precharged prior to the transfer of the data over the data lines. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-5 under 35 U.S.C. § 103(a).

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Furutani in view of Sheppard (U.S. Patent No. 4,388,705). The Office Action takes the position that Furutani teaches and/or suggests all the features recited in claim 1 except for a static

operation mode in which the signal lines are not precharged. The Office Action utilizes Sheppard to teach this feature. Applicants respectfully traverse the rejection of claim 1.

Sheppard is directed to a ROM semiconductor memory circuit having a plurality of word lines, column lines and bit lines. Sheppard also discloses a sensory circuit that operates in a static mode, which provides no precharging to carry out the sensing function. However, a person of ordinary skill in the art would not combine Furutani and Sheppard.

Specifically, combining a static mode of a Read Only Memory (ROM) as taught by Sheppard and a dynamic mode of DRAM as taught by Furutani is equal to combining a ROM with a RAM. As discussed and agreed in the personal interview conducted on December 9, 2003, it would not be obvious to one skilled in the art to combine the operating modes of a ROM device with a dynamic RAM. Accordingly, it is submitted that it would not be obvious to one skilled in the art to combine the cited references. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 103(a).

Allowable Subject Matter

Claim 6 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6 is dependent upon claim 1, therefore Applicants request the withdrawal of the objection to claim 6 for at least the reasons mentioned above.

Conclusion

Applicants' amendments and remarks have overcome the objections and rejections

set forth in the Office Action dated October 3, 2003. Applicants' amendments and remarks have distinguished claims 1-5 from the combination of Furutani and Kurtze, and thus overcome the rejection of these claims under 35 U.S.C. § 103(a). Applicants' amendments and remarks have also distinguished claim 1 from the combination of Furutani and Sheppard, and thus overcome the rejection of this claim under 35 U.S.C. § 103(a). Accordingly, claims 1-6 are in condition for allowance. Therefore, Applicants respectfully request consideration and allowance of claims 1-6.

Applicants submit that the application is now in condition for allowance with claims 1-6 contained therein. Should the Examiner believe the application is not in condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. The Commissioner is authorized to charge payment for any additional fees, which may be required with respect to this paper to Counsel's Deposit Account 01-2300.

Respectfully submitted,

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